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MASSACHUSETTS CRASH* COURSE PROJECT MANUAL

*(Collision Repair Auto Shop Help)

GOVERNMENT DOCUMENTS
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MASSACHUSETTS AUTO BODY ASSOCIATION INC.
MEMBER 1998

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ACRONYMS

This section defines acronyms (abbreviations) that are used in the rest of this manual.

ABC	Fire Extinguisher Rating for A, B, and C Class Fires
AG	Massachusetts Office of the Attorney General
AST	Aboveground Storage Tank
BEST	Boston Environmental Strike Team
BMP	Best Management Practice
CEA	Code Enforcement Agency
CFC-12	Chlorofluorocarbon-12 (also known as Freon™)
CFR	Code of Federal Regulations
CMR	Code of Massachusetts Regulations
CRASH	Collision Repair Auto Shop Help
dB	Decibel
DEP	Massachusetts Department of Environmental Protection
DOR	Massachusetts Department of Revenue
DOS	Massachusetts Division of Standards
EHS	Environmental, Health, and Safety
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
HAP	Hazardous Air Pollutant
HEPA	High Efficiency Particulate Air
HSO	Health and Safety Officer
HVAC	Heating, Ventilation, and Air Conditioning
HVLP	High Volume Low Pressure
ISD	Inspectional Services Division



lbs/gal.	Pounds Per Gallon
LVLP	Low Volume Low Pressure
LQG	Large Quantity Generator
MABA	Massachusetts Auto Body Association
MOBD	Massachusetts Office of Business Development
MSDS	Material Safety Data Sheet
MVAC	Motor Vehicle Air Conditioning
NEEAT	New England Environmental Assistance Team
NEWMOA	Northeast Waste Management Officials' Association
NFPA	National Fire Protection Association
OSHA	U.S. Occupational Safety and Health Administration [or Act]
OTA	Massachusetts Office of Technical Assistance for Toxics Use Reduction
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
psi	Pounds Per Square Inch
P2	Pollution Prevention
SQG	Small Quantity Generator
TCLP	Toxicity Characteristic Leaching Procedure
UST	Underground Storage Tank
VOC	Volatile Organic Compound
VSQG	Very Small Quantity Generator

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Massachusetts *Crash** *Course*
Project Manual
*(Collision Repair Auto Shop Help)

Workbook



1 Introduction

The *Collision Repair Auto Shop Help* (*CRASH*) *Course* was developed for auto body shops like yours. It was designed to help you:

- understand and achieve compliance with environmental, health and safety (EHS) requirements; and
- learn about and implement pollution prevention and other best management practices.

The project includes this manual and a series of free workshops that will be available to shops like yours in the fall of 1998. This manual also provides resources that you can contact to get answers to your questions.



EHS requirements are designed to help protect our land, water, and air quality, as well as the health and safety of everyone in and around your shop. By complying with these requirements, you can help protect your shop from severe penalties, other legal liabilities, and lost labor hours associated with worker injuries. If you take the additional steps to prevent pollution and operate your shop according to best management practices (as described in this manual), you can help reduce your operating costs by cutting down on the use of hazardous materials and the generation of waste.

1.1 WHY IS THIS *CRASH COURSE* IMPORTANT?

Enforcement agencies want to see that you are taking steps to avoid EHS problems. They helped develop this *CRASH Course* to assist your shop in (1) complying with EHS requirements, (2) implementing pollution prevention efforts, and (3) documenting your efforts. If an inspector identifies an area of non-compliance at your shop, you may qualify for a waiver or a reduction of penalties under the Massachusetts Small Business Compliance Incentive Policy or Small Business Audit Policy (see Sections 4.2 and 4.3 of the Toolbox, respectively). To qualify you must clearly demonstrate the steps that you have taken to comply with the law and prevent pollution. This is commonly referred to as showing a good faith effort to comply with legal requirements.

Part of demonstrating a "good faith effort" is keeping up to date with, and implementing, program requirements and recommendations. The simplest way to do this is to make photocopies of the Self-Assessment Checklist in Section 3 of this Workbook (that is, blank copies - before you complete the checklist for the first time) and complete the checklist every quarter (four times per year). Keep the completed checklists in a separate EHS file, together with all of your permits, hazardous waste manifests, Material Safety Data Sheets (MSDS), health and safety training records, pollution prevention documentation, and other EHS records.



The *CRASH Course* is important because several enforcement agencies have worked together to identify and review EHS requirements for auto body shops. This manual represents their agreement regarding what you can do to reduce your potential liabilities. It is the first time that this information (1) has been pulled together for you in an easy-to-use format and (2) has included the support of all the enforcement agencies.

To get more information about the material in this manual, a good starting point is the Massachusetts Office of Technical Assistance for Toxics Use Reduction (OTA). You can reach OTA at (617) 727-3260. More information about OTA is provided in section 1.2.

1.2 *CRASH COURSE* BACKGROUND AND ORGANIZATION

This section describes the *CRASH Course* project's background and organization.

1.2.1 Crash Course Background

The Massachusetts Office of the Attorney General initially asked the Massachusetts Office of Technical Assistance for Toxics Use Reduction (OTA) of the Executive Office of Environmental Affairs to develop this project. In response to this request, OTA secured funding from the U.S. Environmental Protection Agency (EPA) and the support of the Massachusetts Department of Environmental Protection (DEP). Each of these entities agreed that the existing regulatory approach toward auto body shops could be improved; a key concern was that many shops do not know or understand what they have to do to comply with the law.

OTA then designed the basic approach for the *CRASH Course* project: produce a manual that contains a plain language summary of the law, that is easy for shop owners and workers to understand, and that serves as a guidance document to demonstrate basic environmental compliance. Along with the above agencies, the Massachusetts Auto Body Association (MABA) and a number of individuals with knowledge of auto body shop operations agreed to participate in the formation of this manual.

No summary can be a complete explanation of everything that is required. This manual is a guide to understanding the EHS rules that apply to the auto collision repair industry at the date that this manual was prepared. This manual does not constitute an official rule, regulation, or law.

A. Sponsoring Organizations

Various agencies worked together to prepare this manual. The principal author of this manual is OTA. *OTA does not have any enforcement power*. It provides free assistance to anyone using toxic chemicals. OTA's help is confidential; its staff only will report imminent threats. OTA can help you reduce toxics use and comply with environmental rules. It has helped hundreds of companies; most of them have ended up saving money as well. The Office of the Attorney General has some leeway (called enforcement discretion) in prosecuting violations, and will look favorably on a company's efforts to comply with the laws and implement pollution prevention recommendations laid out in this manual.



The Office of the Attorney General is charged with prosecuting violations of environmental law in court. This project represents a recognition by this office that it is necessary not just to enforce the law against those who disregard it; it also is necessary to help those who do not understand the laws well enough to comply. The project has the support of the Office of the Attorney General because it is expected to be an efficient method of improving compliance.

The regional office of EPA, responsible for the implementation of federal environmental laws, also believes that it is important to use not just enforcement, but to develop educational tools and regulatory mechanisms that are easy to follow. EPA's regional office has established a team just for helping people comply with the law. It is called the New England Environmental Assistance Team (NEEAT); information on how to contact NEEAT is included in Section 3 of the Toolbox. The NEEAT can provide you with a wide range of compliance information. You do not need to identify yourself and the NEEAT staff will *not* try to find out your location.

The Massachusetts DEP is the primary department responsible for the day-to-day enforcement of environmental laws in the Commonwealth by means of inspections, orders, permits, and other regulatory operations. It exercises powers delegated by federal laws and it also has authority under state laws. In addition, DEP provides compliance assistance services, from its headquarters in Boston and from each regional office.

Although this manual is not as detailed a guide of occupational safety rules as it is of environmental rules, important safety requirements are noted. For further help, you can contact the Massachusetts Division of Occupational Safety, Occupational Safety and Health Administration (OSHA) Consultation Program. This program provides free consultation services on health and safety issues. Its staff will work with you to correct violations and assist you in complying with OSHA regulations. Any violations found during the course of the consultation are not reported to OSHA, as long as you work to correct the most serious violations.

B. Additional Resources

So that you can get more information and assistance, phone numbers and website addresses for all of the organizations involved in this project and for other resources are provided in Section 3 of the Toolbox portion of the manual.

1.2.2 CRASH Course Manual Organization

The sponsors wanted to provide you with a manual that is short and easy-to-use. They also wanted to provide enough information for those that were interested or needed more help to comply with the law and improve EHS performance. To do this, the manual was divided into two parts: (1) a Workbook and (2) a Toolbox. These parts are described below.

A. Workbook

The Workbook is designed to be a short and easy-to-use compliance and pollution prevention resource. This part of the manual will help you understand the regulations and comply with them.

WORKBOOK

The Workbook includes this Introduction (Section 1), a Regulatory and Pollution Prevention Overview (Section 2), and a Self-Assessment Checklist (Section 3). You should read Sections 1 and 2 and use the checklist in Section 3 to evaluate, improve, and document your compliance. You also can use the Workbook to learn about some best management practices and pollution prevention ideas that can help you improve compliance and reduce your waste generation.

B. Toolbox

The Toolbox is designed to provide additional resources and information that auto body shop representatives will find useful. Section 1 of the Toolbox, Auto Body Repair Step-By-Step, provides activity-specific compliance and pollution prevention tips. Section 2 of the Toolbox provides Health Protection and Fire Prevention Requirements that are important for all auto body shops. Section 3 of the Toolbox provides Resources, Forms, and Other Tools; this section can be used to get phone numbers for contacts that can provide compliance assistance, vendor information, necessary forms, and other guidance materials. Section 4 of the Toolbox, Financial Tools and Positive Policies, provides information on financial assistance tools and incentive programs which may be available to help shops that need new pollution control or prevention technologies or that are found to be in violation of the law. Section 5 of the Toolbox, Glossary Tool, provides definitions for technical and regulatory words that are used in the manual.

2 Regulatory and Pollution Prevention Overview

Use this section to learn about environmental, health, and safety (EHS) requirements that apply to your shop and why they are important. In addition, learn about the concept of pollution prevention as a way to improve your compliance, reduce your waste generation, and reduce your operating costs.

Then use Section 3 of this Workbook, the Self-Assessment Checklist, to see how well you comply with regulatory requirements and use Section 1 of the Toolbox (Auto Body Repair Step-By-Step) to learn more about compliance and pollution prevention tips for common auto body shop activities.

2.1 REGULATORY OVERVIEW

This section presents the basic commercial and EHS requirements that will apply to your shop, including:



State and local permits, licenses, and registrations that you must obtain before you can legally operate a business in Massachusetts - See Section 2.1.1.



Various State and Federal regulations that you must comply with to help protect your business from damaging the environment - See Section 2.1.2.



Occupational safety and health and fire prevention requirements that you must comply with in order to protect you and your employees from job-related accidents and injuries - See Section 2.1.3.

2.1.1 Commercial Permit, License, and Registration Requirements



This section summarizes state and local permits, licenses, and registrations that you will need before you can run your shop as a registered, *legal,* commercial business. You should be aware that different towns call these requirements by different names. For example, your town may refer to a permit described below as a "license" or "registration." Whatever the requirement is called in your town, you will need to address all of the areas discussed below.

A. Occupancy Permit

First, you will need an Occupancy Permit. This permit allows you to use a building to run an auto body shop. Occupancy permits are issued by your local Code Enforcement Agencies (CEAs). In a small town, the Occupancy Permit may be issued by separate local CEAs (such as the health department, fire department, and building inspection department). Large towns may group all of



these CEAs into one organization called the Inspectional Services Division (ISD). You should check your local telephone directory to find out where the ISD in your area is located or ask your town hall which agency or agencies are the CEAs in your area.

What will my CEA require before it issues an Occupancy Permit?

Before issuing an Occupancy Permit, your CEA will try to prevent hazards that may be associated with solvents, paints, and other materials that may be used in your auto body shop. Your CEA will require that your shop meets the requirements of the *State Building Code* and the *Massachusetts Board of Fire Prevention Regulations* before it issues your occupancy permit.

To control the spread of flammable vapors, the State Building Code requires that your spray painting area consist of one of the following:

- **a spray booth** - which has three walls and one open side, or
- **a spray room** - which has four walls with a door on one side.

How should my spray painting area be constructed?

In order to issue an Occupancy Permit, your CEA must approve your spray painting area. Your CEA will require three main things in order to approve a spray painting area:

- **adequate ventilation** --- a system is needed to exhaust flammable vapors so that they do not build up in the spray painting area (a Ventilation Permit from your local CEA will be required to document adequate ventilation);
- **proper wiring** --- any electrical equipment located in, or just outside, the spray painting area must not produce any sparks;
- **fire resistance** --- in case a fire starts in your shop or spray painting area, the spray painting area must be made of materials that make it hard for a fire to spread.

The state, the National Fire Protection Association (NFPA), and the U.S. Occupational Safety and Health Administration (OSHA) have additional requirements for the legal design and operation of a spray room or spray booth. See Workbook Section 3 "Self-Assessment Checklist" for specific requirements on the construction of spray painting areas.

In some areas, the Fire Department, in addition to the CEA, may require a permit for your spray painting area. You should check with your local Fire Department to see if it requires an additional permit for your shop's spray painting area.



Remember: You MUST have an approved spray painting area to obtain your Occupancy Permit and legally operate your shop. If an inspector visits your shop and discovers that you do not have an approved spray painting area, you will be given an order to **STOP WORK**. This means that no painting may be done in your shop until this concern is addressed.



B. Flammable Storage



A major concern for auto body shops is the safe storage of flammable materials. If these materials are not managed properly, their storage and use can lead to fires, health and safety hazards, and environmental damage.

You will need a Flammable Storage Permit or License to keep preparation solutions, thinners, paints and other flammable materials (such as oxygen and acetylene cylinders) on site. In some cities and towns, only one permit or license may be required for the storage of all the flammable materials in your shop. In others, two may be required: (1) one for paints and (2) one for other flammable materials.

The authority that issues Flammable Storage Permits or Licenses can vary, depending on where you are located. In Boston, the Committee on Licenses issues Flammable Storage Permits or Licenses. In other areas, the Fire Department may issue them. The state, NFPA, and OSHA have additional requirements for the legal design and operation of a spray painting area. Go to Workbook Section 3, Self-Assessment Checklist, for specific requirements that apply to flammable materials storage.

C. Towing Services

If your shop provides police-ordered towing services, you will need a Towing License from the Massachusetts Division of Transportation. Contact this division at (617) 305-3559 for more information.

D. Vehicle Storage

Vehicle storage permits are issued by your local CEA or by another local or regional group, and address the following:

- Vehicles stored INSIDE require a Garage Permit. The Garage Permit typically will be issued for the number of cars that can reasonably fit inside your shop (including cars that are stored in preparation and spray painting areas). Check with your city or town hall to see if you need a Garage Permit.
- Generally, vehicles that are stored OUTSIDE for more than 30 days require a Use of Premises Permit. Note: In some areas, storing vehicles outdoors for any length of time may require an outdoor vehicle storage permit.

If you store vehicles inside and outside, you may require two permits. In Boston, the Committee on Licenses issues vehicle storage permits. In other areas, your local CEA should be able to direct you to the proper authority for Garage and Use of Premises permits.

Now That You Have The Basic Commercial Permits And Licenses Required to Operate an Auto Body Shop...

1. You must register with the State Division of Standards (DOS). The DOS is a State agency which ensures that businesses and professionals that provide a service meet certain requirements. For auto body shops, the DOS requires:
   a. *A $10,000 Surety Bond* - Your shop must have this bond to cover costs in the event that a customer files a valid complaint for work that your shop has done on his or her car.
   b. *Worker's Compensation Policy* - You must have a Worker's Compensation Policy with an accident insurance company if your shop employs more than one person or your shop is incorporated.
   c. *An Appraiser's License* - At least one person employed by your shop must be registered with the State as an appraiser and obtain an appraiser's license to issue and negotiate appraisals for auto repair.
2. You must obtain a Federal Tax Identification (ID) number from the State Department of Revenue (DOR). You also must get a sales tax registration number from DOR because your shop provides a service that the State considers taxable.
3. You must register your auto body shop as a business with your City or Town Hall.

Contact the DOS at the (617) 727-3480 for more information on the above requirements.

2.1.2 Environmental Requirements

The EPA and DEP implement requirements that address air pollution, water pollution, and hazardous waste management at auto body repair shops. By complying with these requirements, you will protect your community's air and drinking water quality, safeguard the health and safety of your employees and yourself, and protect your business from the financial burden of environmental liability or potential fines, penalties, and cease and desist orders.

A. Air Requirements[1]



Common auto body shop air pollutants that are regulated include: (1) volatile organic compounds (VOCs) and (2) motor vehicle air conditioning refrigerants. Particulates, from sanding or grinding operations, are even more of a health and safety concern than an air pollution concern and are addressed as such in this manual.

Air Permit and Source Registration Requirements -- VOCs

VOCs are contained in paints, surface preparation solutions, and solvents and can be harmful to human health and the environment. VOC requirements are designed to reduce the release of VOCs and to ensure that materials that contain VOCs are properly managed.

[1] *310 Code of Massachusetts Regulations (CMR) 7.00 and Clean Air Act Sections 608-612. Note: Massachusetts regulations are designed to comply with a new VOC-rule that EPA has issued.*



The state's air permit and source registration requirements are based on the amount of VOCs emitted by your shop, as described below.

If your shop uses less than 670 gallons of VOC-containing materials per month, Massachusetts law[2] allows you to qualify for an air permit exemption if you also meet record keeping, spray enclosure, stack height, coating and equipment requirements (see below). IMPORTANT: If you claim this exemption, you must keep the last 12 months of your chemical purchase records to document your usage rate.

If your shop uses more than 670 gallons of VOC-containing materials per month, or if you are otherwise unable to meet the record keeping, spray booth, and stack height requirements, you must apply for an air permit. You should contact your regional DEP service center to apply for a permit (see Section 3 of the Toolbox, Resources, Forms, and Other Tools).

If your shop uses only slightly more than 670 gallons of VOC-containing materials per month, you should use the various pollution prevention tips provided in Section 1 of the Toolbox to reduce your VOC levels to the point where you qualify for the permit exemption.

NOTE: If you receive a Source Registration package in the mail from DEP, you must complete it and return it to DEP within the period of time specified.

Spray Enclosure (Spray Booth or Spray Room) and Stack Height Requirements

The state law provides several specific DEP guidelines[3] for design and performance of spray enclosures, in order to prevent or minimize air quality impacts from spray painting (Note: there also are additional state, OSHA, and NFPA requirements for spray enclosures, as listed in Section 3 of the Workbook, items 17 and 18). These requirements include the following:

- Exhaust filters must consist of two or more layers of dry fiber mat, with a total thickness of at least 2 inches. The filters must reduce exhaust spray paint emission by at least 97% by weight.
- The maximum air velocity at the face of the exhaust filter must not be greater than 200 linear feet per minute.
- Stack construction and performance requirements -
  - exhaust flow must be vertical and unrestricted by rain protection devices;
  - stack must vent emissions at no less than 40 linear feet per second; and
  - stack height must be 10 feet above roof level or 35 feet above ground level.
- There may be NO visible emissions from the stack.

[2] *310 CMR 7.03(13)*

[3] *310 CMR 7.03(13)*

Coating and Equipment Requirements -- VOCs

You must make sure that you purchase and use *compliant coatings* (see the definition in the table below). Massachusetts vendors are required to sell only VOC-compliant coatings.

Coating materials include surface preparation solutions, paints, and special finishes. The Massachusetts air requirements[4] list limits for the pounds of VOC per gallon (lbs VOC/gal.) that are allowed for a variety of these solutions and materials. The following limits apply:

Type of Surface Preparation Solution or Coating Material	VOC Limit (as applied)
Surface preparation solution	1.67 lbs VOC/gal.
Pretreatment wash primer	6.5 lbs VOC/gal.
Primer/primer surfacer	4.8 lbs VOC/gal.
Primer sealer	4.6 lbs VOC/gal.
Topcoat (single stage or basecoat/clearcoat)	5.0 lbs VOC/gal.
Three- or four-stage topcoat	5.2 lbs VOC/gal.
Specialty coating	7.0 lbs VOC/gal.

"As applied" refers to the coating that is actually sprayed onto the vehicle. In other words, all the components (such as paint, hardener, reducer, etc.) that make up a coating must be mixed so that the ***total*** VOC content of the coating as applied is below the VOC limits (second column above). "Compliant coatings" meet the requirements listed above when properly mixed and applied. Your coating manufacturer should provide mixing and application instructions for each material.

State law[5] requires that you use HVLP (high volume, low pressure) or LVLP (low volume, low pressure) spray guns and train your operators to use this equipment safely and properly. Because this equipment increases your painting *transfer efficiency* (see the definition in the Glossary Tool, Section 5 of the Toolbox) when operated properly, HVLP or LVLP spray guns reduce the amount of paint used. As a result, your total VOC emissions also are reduced. Complying with this equipment requirement should save you money in the long term on raw materials and waste disposal costs. **You also must clean these guns in an approved gun washer to reduce your solvent use and VOC emissions. These washers (1) recirculate solvent for reuse and (2) collect spent solvent; they also use less solvent and less labor time to wash spray guns than older gun washing methods.**

Motor Vehicle Air Conditioning Requirements -- CFCs

If you service or repair motor vehicle air conditioning (MVAC) systems or even if your workers perform work under the hood of a vehicle for other than painting purposes, you must comply with a variety of Clean Air Act requirements (Sections 608-612 cited previously).

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[4] *310 CMR 7.18(28)*

[5] *CMR 7.18 (28)*







Why do we need the MVAC requirements? These requirements are designed to restrict the use and release of ozone-depleting substances that harm the environment. Regulated refrigerants include chlorofluorocarbon (CFC)-12 (also known by the trade name Freon™), which was commonly used as a motor vehicle air conditioning refrigerant. This compound is no longer produced but is still commonly found in the MVACs of older vehicles.

The primary goal of these regulations is to prevent the release of CFC-12 and similar compounds into the atmosphere during MVAC servicing. *It is illegal to knowingly release CFCs to the environment because they may contribute to long-term global warming*. Important requirements for MVAC servicing are summarized below.

- **Certification** - For your purposes, any shop personnel that have the potential to service (repair, alter, evacuate) the MVAC must possess MVAC servicing certification. This certification is designed to make sure that operators are trained to properly manage CFC refrigerants. A list of approved certification organizations can be obtained by calling the EPA Stratospheric Ozone Hotline at (800) 296-1996.
- **Equipment** - All equipment that (1) recovers or (2) recovers-and-recycles refrigerant from MVACs must be approved by EPA or by an EPA-approved equipment testing organization. A list of EPA-approved equipment can be obtained by calling the Ozone Hotline.
- **Documentation** - Shops that do MVAC work must certify to EPA that they use approved CFC-12 reclamation equipment. When collected, refrigerant should be sent to a reclamation facility and the name and address of that facility must be kept on file. You do not need a special form to record this information; just keep it available.
- **Sale and Use** - Regulated MVAC refrigerants must be managed in a manner to prevent the sale of these refrigerants to unregistered parties. In order to ensure the safe handling of these materials, only certified technicians can buy restricted refrigerants. If you buy these refrigerants, you must make sure that you comply with applicable sale restrictions. In addition, under Section 612 of the Clean Air Act, certain CFCs are not approved for use in cars (for example, cars must have proper retrofits of their equipment before CFC-134a can be used for their cooling systems). Check with a knowledgeable supplier or with EPA for more information. To help you, EPA has developed a Fact Sheet called "Choosing and Using Alternative Refrigerants". It is available on the EPA Ozone web page.

For more information on how to comply with these requirements, call the EPA Stratospheric Ozone Hotline at (800) 296-1996 or visit EPA's Ozone web page at http://www.epa.gov/ozone. The hotline and web page provide a list of Technician Certification Programs, fact sheets regarding MVAC Requirements, and specific Dos and Don'ts related to working with MVACs. You also can call EPA in Region 1 for more information at (617) 565-3420 or (800) 821-1237.

B. Water Requirements[6]



Industrial wastewater generated by your shop consists of vehicle wash water, shop floor wash water, laundry water, and equipment wash down water. Industrial wastewater that is managed improperly may threaten our drinking water supplies and cause damage to the environment. Surface water bodies include lakes, rivers, streams, and the ocean; they are used for recreation, fishing, natural habitats, and drinking water supplies. Groundwater consists of layers of water that exist below the surface of the ground. If wastewater is disposed onto or into the ground, pollutants in that wastewater (such as solvents or oils) may seep into and contaminate groundwater. In Massachusetts, groundwater is a valuable private and public drinking water supply source and must be protected. Floor drains in your shop that discharge your industrial wastewater to a septic system, a cistern, or directly into, or onto, the ground are NOT legal. If you currently discharge in this manner, you must seal the floor drain and collect and contain your wastewater in a container or tank for proper management. Call OTA for more information at (617) 727-3260.

Wastewater Discharges to a Sewer Line

If the floor drain or sinks in your shop go directly to a city sewage treatment plant (also called a publicly owned treatment works or POTW), there are limits on the types of materials allowed in your industrial wastewater discharge. You are not allowed to discharge:

- Materials such as solvents, gasoline, large solids (such as large pebbles or gravel), hazardous wastes, or excessive amounts of soap (or other organic chemicals). These materials can cause a fire hazard or interfere with POTW treatment operations.
- Strongly corrosive wastes (See the Vehicle Washing activity, in Section 1 of the Toolbox, for tips on how to manage battery acids) or strongly alkaline wastes. The pH limits established by DEP are 5.5 or below for acids and 9.5 or greater for bases (standard units). This means that if the pH of your waste is between 5.5 and 9.5, you can discharge it to the sewer. If you are not sure about the pH level, you can easily measure pH using simple tests or equipment.
- Large volumes of heated water without approval from your local POTW. It is unlikely that your shop will need to dispose of a large quantity of heated water at one time.

In addition, you should check with your local POTW to determine discharge limits for petroleum-based oil and grease discharges. In many cases, you will be required to have an oil-water separator (sometimes called a gas trap or grease trap) on your drain to remove oily waste from wastewater before it enters the sewer.

An **oil-water separator** removes solids and oil from your wastewater and collects them for proper disposal. The rest of the wastewater is discharged to the sewer. It is important to maintain an oil-water separator so that it functions properly. It should be checked weekly to see if the sludge in the bottom or the floating oily waste needs to be removed and disposed. These wastes need to be

[6] *314 CMR 2.00-12.00*



managed either as a hazardous waste or as an oily waste, depending on the content. Section 2.1.2.C discusses waste management.

Vehicle Washing Concerns

Vehicle wash water is the primary industrial wastewater concern associated with auto body shops. This auto body shop wastewater can contain several pollutants, including:

- soaps or detergents
- road oils and greases
- paint dust or solvent residues from sanding and grinding operations
- de-icing salts
- metal chips, flakes, and dust
- fluids that leak from a vehicle

Currently, your shop does not need a sewer connection permit from DEP. However, it is likely that your shop will be covered by a new DEP regulation regarding sewer connections that is expected to be issued in early 1999. For more information, you can contact DEP at (617) 292-5638. If your shop already has a sewer-use permit from your local POTW, you must comply with the requirements in that permit.

(1) Outdoor Vehicle Washing

Because it is a business activity, washing vehicles outdoors on your shop's driveway or parking lot is subject to different requirements than would apply to a resident washing his or her personal vehicle outside.

Wastewater from vehicle washing that is allowed to run off your lot will either (1) go into storm drains, (2) seep into the surrounding soil, or (3) flow into nearby creeks and gullies. Regardless of where it goes, your wastewater will go into the environment untreated and therefore poses a potential hazard to local surface water and groundwater quality.

Important: You should make sure to manage your wastewater properly. If water withdrawn from a nearby well or body of water contains pollutants that could be from your shop, you may be held liable for the cleanup of that water. You could also be forced to pay fines for violation of laws designed to protect water quality. Therefore, it is in your best interest to manage your wastewater properly.

To help you be aware of what potential liabilities exist, you should contact your local conservation commission or regional DEP office to find out if your shop is in a sensitive area. They should be able to tell you if there are wells or designated drinking water sources nearby, if you are situated over an important underground source of water, or if you are in a designated area for environmental concern.

The BEST way to reduce the potential for law suits and penalties is to collect all of your wastewater and have it picked up for proper treatment and disposal. You can collect the wastewater by washing vehicles (1) within a bermed area (using either a permanent or temporary watertight berm), (2) on a tarp or specially designed vehicle wash pad area, or (3) using other mechanisms

which prevent the wastewater from running off into storm drains, into surface water, or onto the soil. The collected wastewater should be transferred into a container. You can drain, pump, or wet-vac the wastewater to transfer it into the container.

The next best way to avoid pollution liability is contaminant separation of your wastewater. This alternative is less protective than having your wastewater picked up but is MORE protective than direct discharge of the wastewater. Section 3 of the Toolbox (Resources, Forms, and Other Tools) provides a diagram of a container system that can be used for wastewater management before discharge. Once your wastewater is collected, let it stand for several hours (usually overnight) so that solids settle to the bottom and any oily materials float to the top. Then use sorbents (such as pads or socks) to remove the floating oil and dispose of the sludge from the bottom as either an industrial or hazardous waste. The remaining wastewater can be poured out (preferably into your indoor drain, assuming that you have an oil-water separator and are connected to a POTW). Discharging the water through a filter or fine mesh screen to catch any particulates that did not settle out of the water will give you added assurance that you are not harming the environment.

Finally, a very basic approach that offers less protection than the above methods, but is still better than direct discharge is to place oil-sorbents (like socks or berms that are designed for oil absorption) or even rags in the path of wastewater runoff. This approach can help remove some of the contaminants from this wastewater, depending on what you use and how you use it. Dispose of the contaminated sorbents properly.

Cleaner and Safer Operations: No matter what separation method you apply, you also should implement the best management practice tips for Vehicle Washing provided in Section 1 of the Toolbox. These tips will help you meet water requirements, reduce your potential liability, and reduce your impact on water quality. In addition, use the Section 3 Self-Assessment Checklist in the Workbook, comply with the best management practices and requirements listed, and document your efforts. All of these steps are good ways to demonstrate that you are making a "good faith effort" to meet the requirements and reduce your impact on water quality.

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(2) Indoor Vehicle Washing

Even if you wash vehicles indoors, most of the water compliance and *Cleaner and Safer Operations* tips will apply to your washing operations. Many of the limitations on industrial wastewater discussed earlier may apply to indoor vehicle wastewater. That is why it is important to know what wastes may be washed into your floor drain during vehicle washing, either from the vehicle or from the shop floor.



Remember: You can call OTA at (617) 727-3260 for free help in setting up a wastewater management program for your shop.



C. Hazardous Waste Requirements[7]



The improper management of hazardous waste can greatly damage human health and the environment. EPA and DEP enforce hazardous waste requirements for shops that generate, transport, treat, store, or dispose of hazardous waste. Common auto body wastes that are considered hazardous include: waste paints, waste solvents, saturated clean-up materials, and some solvent-containing fillers.

All hazardous waste requirements are designed to protect the environment. This section describes some important and basic requirements for operating your shop in compliance with DEP hazardous waste regulations.



If you have questions concerning hazardous waste, call the DEP Hazardous Waste Management Hotline at (617) 292-5898.

1 Hazardous Waste and Waste Oil Generator Status

First, you should determine your hazardous waste and waste oil generator status. Use the table below to determine if you are a Very Small Quantity Generator (VSQG), a Small Quantity Generator (SQG), or a Large Quantity Generator (LQG). It is possible that your status could be different for each waste category (hazardous waste or waste oil) - this is called having a "dual status."

Hazardous Waste and Waste Oil Generator Status Evaluation

If you generate hazardous waste at the following rate...	Your generator status is...
0 to 26 gallons of hazardous waste per month	VSQG
27 to 270 gallons of hazardous waste per month	SQG
More than 270 gallons of hazardous waste per month	LQG
If you generate waste oil at the following rate...	**Your generator status is...**
0 to 26 gallons of waste oil per month	VSQG
27 to 270 gallons of waste oil per month	SQG
More than 270 gallons of waste oil per month	LQG

Note: Your generator status is based on the largest generator category that you meet in any one month during the last 12 months of waste generation (not an average of the last 12 months of waste generation data).

Your generator status is important because it impacts which of the following requirements apply to you.

[7] *310 CMR 30.00*

2 Hazardous Waste ID Number and DEP One-time Notification

If you are a SQG or LQG of hazardous waste, you must obtain a Hazardous Waste ID number from EPA and notify DEP that you are generating waste. Your Hazardous Waste ID number is specific to your facility and is used to track the waste after it leaves your shop. If you are a VSQG you must register with DEP and you will self-assign your hazardous waste ID number by using your telephone number, including area code with the prefix MV. Instructions for obtaining the forms that are required to apply for a Hazardous Waste ID number and submit a one-time notification to DEP are included in Section 3 of the Toolbox.

3 Labeling Requirements

Every hazardous waste drum which you accumulate must be labeled with the following information:

- ✔ the words "HAZARDOUS WASTE,"
- ✔ the name of the waste, for example, *"waste paint solvent"*,
- ✔ the type of hazard (e.g., ignitable, corrosive, reactive, toxic, or waste code for listed wastes), and
- ✔ if you are a SQG or LQG, the date on which accumulation began.

A sample hazardous waste label is provided in Section 3 of the Toolbox.

4 Hazardous Waste Storage/Accumulation

Your shop should have a designated area where containers of waste are managed until they are picked up for recycling or disposal. You must do the following in your storage/accumulation area:

- ✔ clearly mark the area's edges (for example, yellow painted lines could be used);
- ✔ post a sign that says "HAZARDOUS WASTE" in letters that are 1-inch high or larger;
- ✔ check hazardous waste containers weekly for rust, cracks, or other damage that may lead to a leak;
- ✔ surround outside hazardous waste storage/accumulation areas with a berm that can hold up to (1) 10% of the maximum volume of all the containers in the area or (2) 110% of the largest single container in the area, whichever is greater;
- ✔ cover outside storage/accumulation areas;
- ✔ store hazardous waste containers on a surface that is free of cracks and is resistant to leaks or spills (unlike tar pavement which is porous and can allow liquids to seep into underlying soils); and
- ✔ store containers in accordance with the volume and time limits that apply to you (see the table on page 2-13).



Based on your hazardous waste generator status (from Item 1 above) you can store/ accumulate wastes in the following quantities and for the following time periods:

If your hazardous waste generator status is...	You can store/accumulate full containers of waste up to.....	You can store/accumulate containers for the following period of time.....
VSQG	no more than 1,320 pounds (about three, 55-gallon drums)	no specified limit
SQG	no more than 4,400 lbs (about 10 drums)	no more than 180 days
LQG	no volume limit	no more than 90 days

A ***satellite accumulation area*** is where partially full containers are used to collect wastes. When containers are full, they must be dated and moved to an accumulation and storage area. Note: all satellite accumulation areas must be at or near the point of waste generation and must be under the control of the shop person doing the activity that is generating the waste (for example, the spray painting worker in the spray enclosure area). You may accumulate up to 55 gallons of hazardous waste in a satellite accumulation area, as long as each container is labeled and moved to a central storage/accumulation area or shipped off-site within three days of being filled.

5 Transporting Waste

SQGs and LQGs are required to have hazardous waste transported by licensed hazardous waste transporters. VSQGs can (1) self-transport waste to another generator (if that shop is willing to that accept waste) or a receiving facility or (2) use licensed hazardous waste transporters.



Contact the DEP Hazardous Waste Hotline at (617) 292-5898 to get a free list of licensed hazardous waste transporters, the services that these transporters are licensed to provide, and the types of generators that they service.

6 Record Keeping and Reporting

Before hazardous waste can be accepted by a licensed transporter, generators (like your shop) must have a hazardous waste manifest completed and signed. The manifest is a form that is used to track the amount of hazardous waste generated and the management of the hazardous waste after it leaves your shop. Each manifest has several copies. Follow the directions on the manifest regarding which copy you should keep and which copies go to the transporter, the receiving facility, or other parties. For each shipment, a copy of the manifest from the receiving facility documenting that your waste reached it final destination should be sent back to you within 30 days.

If after 30 days you have not received your copy of the manifest signed by the receiving facility, you must contact the transporter or the owner/operator of the facility receiving the waste to find out the status of the shipment. If you do not receive a copy of the manifest documenting your waste's

final destination within 15 days of contacting the facility (45 days after you shipped it), you should file an **Exception Report** with DEP. LQGs also must submit a **Biennial** (every other year) **Hazardous Waste Report** to the DEP. SQGs and VSQGs do not have to submit this report.

Finally, all waste generators are required to keep their copies of each manifest, Exception Reports, and any results of sampling and analysis of hazardous waste for three years. VSQGs who self-transport their waste do not have to complete manifests; however, they must obtain and keep receipts from the facility that accepts their waste. LQGs also must keep a copy of their Biennial Hazardous Waste Reports for three years after they are submitted.

Remember: Maintaining your manifest records or waste receipts protects you because it assures that your hazardous wastes have been properly managed.

7 Accidental Spill or Release

When containing a spill in your shop, be sure to use the proper health and safety personal protective equipment (as indicated by the Material Safety Data Sheet for each material), and contain the spill as quickly as possible.

In some cases, you may not be able to contain all of the material, and some may become a "release to the environment." If a "reportable quantity" of this material (see table below) is released, you MUST report this event to the DEP within 24 hours — after making a complete attempt to contain and clean up the spill. To report a spill, use a Spill Report form similar to the one included in Section 3 of the Toolbox (Resources, Forms, and Other Tools).



You also should call the state spill report hotline at (617) 556-1133 for the Boston area or (888) 304-1133 for other parts of the state. If you do not report the spill to the proper authorities, you may be subject to enforcement for noncompliance.

A "release to the environment" is when a regulated material escapes outside your shop, such as through a window or door (if it is airborne), or leaks out of your shop through a crack in the floor or an open door. These releases can harm air quality, or the nearby groundwater, surface water, or soil quality, or present a risk to human health.

A "reportable quantity" is the amount of a regulated material that DEP considers to be significant. The table below provides the reportable quantity of regulated materials commonly found in auto body shops.

Regulated Material	Reportable Quantity
paint	greater than 1 gallon
paint thinner	greater than 1 gallon
oil	greater than 10 gallons
power steering fluid or automatic transmission fluid	greater than 10 gallons



8 Imminent Danger

An activity or condition that poses an immediate danger to human health or the environment is defined by EPA as an ***imminent threat*** and by DEP as a*n* ***imminent hazard.*** For example, disposing of used paint thinner by pouring it onto the ground outside a shop is considered to pose an immediate danger. If you suspect that you have observed an imminent threat or hazard, call the DEP spill report line at (888) 304-1133 and report the situation. You are required by law to report such threats immediately.

9 Contingency and Emergency Planning

SQGs are required to have an ***emergency plan*** (LQGs must have both an emergency plan and a written contingency plan). The emergency plan must include or describe the following:

- a designated emergency coordinator,
- an alarm or communication system to alert people inside the shop,
- a telephone or other communication system to contact emergency response teams,
- portable fire extinguishers and automatic sprinklers or foam-producing equipment,
- clearly marked lit exits that can be used to escape in an emergency,
- a plan for instructing employees on emergency procedures,
- emergency phone numbers and an evacuation plan that is also clearly marked and posted,
- procedures to notify emergency response agencies of chemical and waste activities, and
- spill control materials and procedures.

Section 2 of the Toolbox, Health Protection and Fire Prevention Requirements, includes more information on contingency and emergency plan requirements.

What Wastes Are Considered Hazardous?

There are two ways that a waste can be considered hazardous: (1) it can be a *listed waste*, or (2) it can be hazardous based on its *characteristics* (either ignitable, corrosive, reactive, or toxic). You can get a list of the "listed wastes" from DEP or OTA. The text below lists examples of auto body wastes that can be characteristic and defines each characteristic in more detail.

Waste Characteristics and Definitions with Example Auto Body Wastes

Ignitable - liquid wastes with a flash point of less than 140° Fahrenheit

- Paint-related materials such as solvents, thinners, preparation solutions and coatings (if MSDS indicates flash point is less than 140° Fahrenheit)
- Petroleum-based parts cleaners such as mineral spirits or stoddard solvents
- Excess or off-specification kerosene or gasoline

Corrosive - Waste having a pH of 2.0 or less (strong acids) or 12.5 or more (strong bases)

- Caustic degreasers for parts cleaning
- Rust removal solutions
- Lead-acid batteries
- Cleaning solutions that are alkaline or acidic

Reactive - unstable or explosive waste; waste which reacts violently when mixed with water; wastes (such as sulfide or cyanide-bearing wastes) that release toxic vapors when exposed to corrosive conditions

- Aerosol spray cans with contents that are under pressure

Toxic - waste which under acidic conditions leaches toxic metals, above certain limits. An EPA-specified test, the Toxicity Characteristic Leaching Procedure (TCLP), can be used to determine if a waste exceeds these limits. Or, you can use your knowledge of these wastes and disposal requirements to evaluate whether the waste is toxic.

- Paints that contain metals of at least the following levels using the TCLP test: arsenic [5 milligrams/Liter (mg/L)], barium (100 mg/L), cadmium (1 mg/L), lead (5 mg/L), mercury (0.2 mg/L), selenium (1 mg/L), and silver (5 mg/L) - your paint supplier should be able to tell you the metals content of your paint
- Related paint wastes such as paint booth filters which may contain metals

You need to evaluate your wastes in terms of how they were generated and how they are managed (current physical characteristics and, in some cases, their treatment or disposal) to determine whether they are hazardous. For example:

- Paint that is wet or mixed with a thinner or other solvent is considered hazardous. However, dry paint in the bottom of an empty can may be disposed of as a solid waste.
- Rags which are saturated with waste oil are considered hazardous. If they are not saturated (that is, not one drop of fluid can be squeezed from each rag), they are considered to be a nonhazardous solid waste, in accordance with DEP's One-drop policy. If you are sending rags to a laundry, be sure that the laundry is capable of treating the oil and other materials that are on the used rags.

2.1.3 Health Protection and Fire Prevention Requirements

The U.S. Occupational Safety and Health Administration (OSHA) is the part of the U.S. Department of Labor that governs regulations related to the health and safety of you, your employees, and your work areas.



The Massachusetts Division of Occupational Safety - OSHA Consultation Program can provide technical assistance and consultation services for OSHA requirements. The program can be contacted at (617) 969-7177.



OSHA requires that you:

- prevent injuries and illnesses through the use of *engineering controls* (see definition in Section 5 of the Toolbox, Glossary Tool), whenever possible;
- when personal protection equipment (PPE) is required, make sure your workers wear the correct PPE to protect them from physical injuries, illnesses, and hearing loss;
- train employees on hazards and safe work practices to prevent injury;
- properly ventilate spray painting areas and flammable storage areas;
- use or store flammable chemicals properly;
- have fire prevention plans and equipment;
- guard machinery against hazards; and
- keep records of employee injuries and accidents.

Some of these requirements overlap with hazardous waste contingency or emergency plan requirements. Therefore, you should make sure that your plans are consistent. If you do this, you will find that you can use some of your contingency or emergency plan components to address your OSHA planning requirements. Section 2 of the Toolbox, Health Protection and Fire Prevention Requirements, includes more information on these requirements.

2.2 POLLUTION PREVENTION OVERVIEW

The first step on the road to environmental compliance is to look for opportunities to use fewer hazardous materials and to generate less waste — in other words, avoid pollution at its source. Why manage wastes when you can eliminate them?

Pollution prevention techniques can help you reduce your compliance burdens, make your workplace cleaner and safer, increase your competitiveness, and save you money. Pollution prevention techniques include:

- replacing toxic or hazardous materials with nonhazardous alternatives,
- replacing or modifying a process in order to use less of a hazardous material or generate less waste,
- improving regular housekeeping techniques to keep the work area clean and safe, and
- reusing or recycling hazardous materials so that less of the hazardous raw materials are used.

The *CRASH Course* manual includes many pollution prevention ideas that you can implement in your shop. See the Section 1 of the Toolbox for pollution prevention tips that address each step of the auto collision repair process.

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Important: The first step to effective pollution prevention is to track your shop's use of materials (particularly, hazardous materials) and your waste generation. Once you have gathered this information, look for ways to avoid the use of harmful materials and to minimize waste. Keep regular records of your inventory and waste pickup. Use this information to measure your progress (look for fewer purchases of materials, fewer pickups of hazardous waste and other waste, and document your increased use of nonhazardous alternatives). Some shops track raw material use per month or per number of repair jobs to track production efficiency.

The following examples of pollution prevention will give you an idea of how pollution prevention can be implemented in your shop and what benefits it can provide.

Example #1:

Shop A avoids using phosphate-based soaps except for cleaning whitewall tires and other special needs. The phosphate-based soap is clearly labeled "for whitewalls and special use only" and is kept in a closed locker. Meanwhile, the owner has asked his jobber to investigate and recommend any non-phosphate cleaners that might effectively replace the phosphate-based cleaner.

By minimizing the use of phosphate-based soaps, Shop A reduces its potential liability for local surface water and groundwater quality problems caused by phosphate contamination, or for any problems at the local POTW associated with phosphates.

Example #2:

Shop B recently switched to HVLP spray guns for spray painting and all employees attended a one-day training on the use of HVLP guns. Note: HVLP or LVLP guns are required in Massachusetts.

HVLP spray guns can increase your painting transfer efficiency significantly. However, proper training is just as important, since the new guns require a different technique to obtain quality coatings with minimal paint waste. The end benefits for Shop B are: (1) reduced VOC emissions (through greater transfer efficiency and reduced paint use), (2) improved working conditions (greater transfer efficiency produces less overspray), and (3) reduced operating costs (less paint needed).

Example #3:

Shop C brings in a lot of vehicles that have been heavily damaged (for example, with ruptured oil lines, gas lines, and antifreeze tanks). The shop also does a fair volume of cutting and grinding during the course of repairing vehicles, which generates a lot of metal dust and fragments. It can also produce sparks that can ignite flammable vapors.

As each vehicle is brought in, employees carefully go over the entire car to look for existing and potential leaks. They keep drip pans nearby, and slide them under the vehicle to catch any leaking fluids. If possible, they keep the dripping fluids separated (by using one pan for oil, one pan for antifreeze, etc.). Any puddles of fluid on the floor are contained or cleaned up with absorbent pads or socks. After each activity, employees quickly sweep up any excess dusts off the floor.



Each of these steps prevent harmful materials from collecting on the shop floor. This keeps the shop clean, relatively dust-free, and helps prevent metals or toxics from being washed down the shop's drains. It also reduces the chance that sparks will ignite flammable vapors associated with leaked fluids and prevents dust from getting into the paint, which can ruin a paint job. By keeping fluid wastes separated, Shop C can recycle waste oil and antifreeze, rather than having to dispose of them along with any battery acids or other hazardous materials.

Example #4:

Shop D generated a lot of spent solvent from washing small parts and tools and other solvent cleaning. The shop has installed an enclosed gun washer (these or other approved gun washers are required by Massachusetts DEP). This allows employees to reuse these solvents to clean their HVLP spray guns. In addition to allowing Shop D to recycle solvent (and reduce the need to purchase new solvent), the enclosed gun washer provides effective cleaning of HVLP guns without evaporation of VOCs in the solvent and saves nearly 15 minutes of labor time in cleaning the guns with each use with each use.

This all saves the shop money, of course, as well as helping the shop to minimize its total VOC emissions.

Pollution Prevention Summary

As you can see from the examples above, the clear benefits of pollution prevention include:

- reduced liability
- reduced operating costs
- greater efficiency
- less waste
- a cleaner and safer shop

Pollution prevention also helps minimize the uncertainty that is associated with the use of hazardous materials and management of hazardous waste — you may find that pollution prevention simply makes your shop an easier, less worrisome facility to operate.

Pollution prevention steps take some extra effort and you may find that some of the tips in this manual do not work for your shop. However, it is important to review your operations and determine where pollution prevention is possible in order to move your shop toward compliance and improve the environmental, health, and safety performance of your shop.

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3 SELF-ASSESSMENT CHECKLIST

You should use this checklist to learn about the federal, state, and local regulations and requirements that apply to auto body shops. This checklist is not a comprehensive list of all requirements, but is based on the basic requirements discussed in Section 2 of this Workbook.

Basic requirements that all auto body shops are required to meet are indicated in bold and with a ✔. Pay particular attention to these questions. For each of these questions, you are in compliance if you answer "Yes" to all parts of a numbered question that have a ✔. A "No" answer indicates that you are NOT in compliance.

Other questions address additional steps that you can take to make your shop cleaner and safer or they may ask you to document operations in your shop. For these questions, what your answer indicates will be clear or will be explained in the text that follows each particular question. *Additional information for some items is provided in italics after the item or you may be directed to other sections of the manual.*

Use this checklist to evaluate, improve, and document your compliance. Doing so will help you demonstrate your good faith effort to comply and improve the environmental, health, and safety standards of your shop. Here is how to use the checklist:

1 **Read and understand each item on the checklist.** Some items are easy to understand. Explanations for other items are provided in *italics* or you may be directed to other sections of the manual for more information. You also may want to contact the resources listed in Section 3 of the Toolbox. To comply with an item, you need to understand it first. *Not understanding a requirement is not considered a good reason for noncompliance*.

2 **Copy and use the checklist.** Make blank copies of this checklist before you use it. Then complete a new checklist roughly each quarter (four times per year). For many items, a yes or no answer is required. For other items, you may need to collect documents, complete fill-in-the blank tables, or contact your supplier for help in obtaining information, before you are able to answer the item yes or no. In some cases, you may be told to skip an item because it does not apply to you. These are the only items that you should skip.

3 **Complete the checklist.** Proceed through each item on the checklist until you have answered and/or completed all of the items. You are now ready to evaluate your compliance.

4 **Evaluate your compliance.** For questions printed in **bold and with a ✔**, you are in compliance if you answer "Yes" to all parts of that question that have a ✔. You must be able to document your compliance (for example, if you indicate that you have an occupancy



permit, you must have that occupancy permit at your shop in case an inspector asks for it). Other questions address additional steps that you can take to make your shop cleaner and safer, or they may ask for documentation about other operations in your shop. For these questions, what your answer indicates will be clear or will be explained in the text that follows each particular question.

5 **Address noncompliance items.** You must work to address any noncompliance items that you identify. To do this, address the **bold (✔)** items first. By the time you are finished, you should be able to address all of these checklist items by answering yes and you should have documentation demonstrating your compliance (unless an item is not applicable to you). You also should demonstrate your efforts for the non-bold (non-check) items by implementing the recommendations for best management practices and documenting these efforts.

6 **Maintain and go beyond compliance.** Now that you are in compliance, you must maintain compliance. Complete a checklist each quarter and keep the completed checklist with your other EHS documents (training records, manifests, and other materials). You also can use the pollution prevention tips included in this manual to evaluate and implement waste reduction and money-saving ideas that will move you beyond compliance.

Here's a list of the **Permits, Licenses, and Registrations** that are commonly required for auto body shops in Massachusetts. The requirements for your shop depend on the activities that you perform. A check mark (✔) indicates an item that is **always required**. Items that do not have a ✔ are required under certain circumstances. For these other items, use the Self-Assessment Checklist to determine which apply to you.

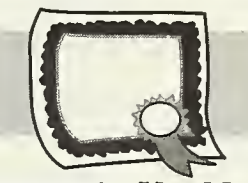
PERMITS, LICENSES, AND REGISTRATIONS *(Always Required = ✔)*

- Occupancy Permit ✔
- Cutting Torch Permit
- Oxygen and Acetylene Storage Permit
- Flammable Storage Permit ✔
- Paint Storage Permit
- Towing License
- Indoor Vehicle Storage Permit (Garage Permit) ✔
- Use of Premises Permit (Outdoor Vehicle Storage)
- Business Registration with your City or Town ✔
- Auto Body Shop License (RS Number) ✔
  - Surety Bond for $10,000 ✔
  - Appraiser's License ✔
  - Worker's Compensation Policy ✔
  - Federal and State Tax Requirements ✔



- ➲ Hazardous Waste Registration
  - Generator Identification Number and DEP Notification ✔
- ➲ Fire Prevention Permits
  - Ventilation Permit ✔
  - Spray Enclosure Permit ✔

3.1 PERMITS, LICENSES, AND REGISTRATIONS



		Yes	No
(1)✔	Does your shop have an Occupancy Permit from your local Code Enforcement Agency?	❑	❑
	Your Occupancy Permit must be posted in an easy-to-see location in the shop.		
(2)	Are cutting torches, acetylene cylinders, or oxygen cylinders stored in your shop? If No, go to item 3.	❑	❑
	✔If Yes, does your shop have valid permits from the Fire Department to store cutting torches, acetylene cylinders, and oxygen cylinders?	❑	❑
(3)✔	Does your shop have a valid Flammable Storage Permit from the Fire Department so that you may legally store paints, oxygen, acetylene, and other flammable materials on site?	❑	❑
(4)✔	Do you have a valid Paint Storage Permit from the Fire Department?	❑	❑
(5)	Does your shop provide a police-ordered towing service? If No, go to item 6.	❑	❑
	✔If Yes, do you have a valid Towing License from the Massachusetts Division of Transportation?	❑	❑
(6)	Are vehicles stored indoors at your shop? If No, go to item 7.	❑	❑
	"Indoor storage" includes having the cars inside to be worked on.		
	✔If Yes, do you have a valid Indoor Vehicle Storage Permit (sometimes called a Garage Permit) from the Fire Department?	❑	❑
(7)	Are vehicles stored outdoors at your shop for more than 30 days? If No, go to item 8.	❑	❑
	✔If Yes, do you have a valid Use of Premises Permit from your local Code Enforcement Agency?	❑	❑
(8)✔	Is your shop registered as an auto body repair business with the local City or Town hall?	❑	❑

		Yes	No
(9)✔	Has your shop registered with the State Division of Standards and obtained an auto body shop license? If Yes, go to item 10.	❑	❑
	If No, be sure that you can answer Yes to the following questions before you contact the Division of Standards to get this required license:		
	Do you have an Auto Repair Surety Bond for at least $10,000?	❑	❑
	If your shop employs more than one person or you are incorporated, do you have a Worker's Compensation Policy?	❑	❑
	Does at least one employee in your shop have a Commonwealth Appraiser's License?	❑	❑
	Does your shop have a Federal Tax Identification (ID) number?	❑	❑
	Has your shop registered with the Massachusetts Department of Revenue and obtained a sales tax registration number?	❑	❑

Once you have obtained your auto body shop license (RS Number), it must be posted in an easy-to-see location in your shop. This license is required to operate your shop legally.

3.2 AIR REQUIREMENTS



		Yes	No
(10)	Does your shop use less than 670 gallons per month (emit less than 2.5 tons per month) of VOC-containing materials? If Yes, go to item 11.	❑	❑
	If Yes, you may claim an exemption from DEP air permitting requirements if you can document your material use for the last 12 months and comply with spray enclosure and coating material requirements (items 12 through 17).		
	✔If No (that is, if you use more than 670 gallons per month of VOC-containing materials or can not comply with items 12 through 17), do you have a DEP Air Permit and comply with all of its requirements?	❑	❑
	If No, contact your nearest DEP regional service center for more information about the permitting process. See Section 3 of the Toolbox for contact information.		
(11)	Has your shop received a DEP Air Emission Statement Package in the mail? If No, go to item 12.	❑	❑
	✔If Yes, have you completed and returned the package to DEP by the date specified?	❑	❑
(12)✔	Do you use high efficiency paint spray guns?	❑	❑
	High Volume Low Pressure (HVLP) and Low Volume Low Pressure (LVLP) spray guns fit this criteria and are required by state law.		



Yes No

If Yes, provide the model name and number: _____

If No, you are not complying with state law. See the Vendor List in Section 3.5.2 of the Toolbox for information on where to purchase high efficiency paint spray guns. Read more about high efficiency spray guns in Section 2.1.2.A in the Workbook.

(13)✔ Do you train operators in the proper use of the paint spray guns? ❑ ❑

If No, contact the manufacturer for information on proper spray gun operation. When used properly, high efficiency spray guns can significantly increase transfer efficiency, so that more paint gets on the part and less is lost to the air. This saves you money and is required by state law.

(14)✔ Are spray guns cleaned in a gun washer that (1) recirculates solvent for reuse and (2) collects spent solvent? ❑ ❑

If Yes, list the model name and number: _____

_____

(15)✔Do you keep monthly purchase records of coating and surface preparation products for the last 12 months?

You must keep these records for at least the last 12 months. Your paint supplier may be able to provide you with monthly or yearly summaries of your purchases. This also will help you document compliance with item 10.

(16)✔ Does your shop use only coatings and surface preparation products that comply with mandated VOC concentration limits? ❑ ❑

Coatings and surface preparation products must meet VOC concentration limits. Lacquer-based coatings (with very few exceptions) do not comply with Massachusetts regulations. For more information on VOC limits for particular coatings, see the table on page 2-6 of this Workbook. Remember that the limits apply to the coatings "as applied", so it is important that they be mixed and applied as instructed by the manufacturer. This also will help you document compliance with item 10.

(17)✔ Do you comply with DEP spray enclosure requirements? ❑ ❑

The spray enclosure requirements are:

- *Exhaust filters must consist of two or more layers of dry fiber mat, with a total thickness of at least 2 inches. The filters must reduce exhaust spray paint emissions by at least 97% by weight;*
- *The maximum air velocity at the face of the exhaust filter must not be greater than 200 linear feet per minute;*
- *Stack construction and performance requirements: (1) exhaust flow must be vertical and unrestricted by rain protection devices; (2) stack must vent*

Yes No

emissions at no less than 40 linear feet per second; and (3) stack height must be 10 feet above roof level or 35 feet above ground level; and

- *There may be NO visible emissions from the stack.*

(18)✔ Do you comply with paint spray exhaust system requirements (items 67-79 of this checklist)? ❑ ❑

(19) Do you service (repair, alter, evacuate) motor vehicle air conditioning units at your shop? If No, go to item 20. ❑ ❑

✔If Yes, are you complying with the requirements described on pages 2-6 and 2-7 of the Workbook? ❑ ❑

Basically, motor vehicle air conditioning system service is regulated to control the release of refrigerants that can harm the ozone layer. You must (1) have certified equipment and technicians (2) comply with documentation requirements and (3) follow sale and purchase restrictions to be in compliance with this item.

3.3 WATER REQUIREMENTS



Yes No

MUCH OF THE WASTEWATER GENERATED BY AUTO BODY REPAIR SHOPS COMES FROM VEHICLE WASHING. THE FOLLOWING QUESTIONS ADDRESS STEPS THAT YOU SHOULD TAKE TO AVOID WATER POLLUTION PROBLEMS. SECTION 2 OF THE WORKBOOK (PAGES 2-8 THROUGH 2-10) AND SECTION 1 OF THE TOOLBOX (AUTO BODY REPAIR STEP-BY-STEP) PROVIDE MORE INFORMATION ON BEST MANAGEMENT PRACTICES FOR VEHICLE WASHING.

(20) Before washing a vehicle, do you sweep the area where you will be washing the vehicle? ❑ ❑

(21) Do you check vehicles for fluid leaks before washing them? ❑ ❑

(22) Do you contain and collect leaked fluids from underneath a vehicle before you wash it? ❑ ❑

(23) Before washing a vehicle, do you remove as much leaked fluid as possible from the vehicle using solvent wipes? ❑ ❑

(24) Do you use phosphate-free, biodegradable soaps and detergents for washing vehicles, as much as possible? ❑ ❑

(25) Do you use phosphate-based soaps for whitewalls and special uses only? ❑ ❑

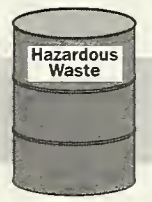
It is recommended that you spray whitewall tires with phosphate-based soap and rub with non-rusting abrasive pads, such as nylon. Wash down wheels and tires after pre-wiping with the phosphate-based cleaner.

(26) Do you minimize the amount of water you use to the greatest extent possible? ❑ ❑

Some shops find that high-pressure washing equipment improves cleaning results while reducing water use.



		Yes	No
(27)	Do you wash vehicles outdoors? If No, go to item 28.	❑	❑
	If Yes, you should be able to answer yes to the following questions to show you are making a good faith effort to protect the environment:		
	Do you use berms to collect wastewater, and run the wastewater through an oil-water separator to remove oil and grit before discharging it?	❑	❑
	Do you wash vehicles away from ground that is not covered by concrete or other impermeable surfaces?	❑	❑
	Do you wash vehicles away from storm drains and manage your wastewater as described on pages 2-8 through 2-10?	❑	❑
(28)	Do you educate your employees on the importance of avoiding surface water and groundwater pollution?	❑	❑
(29)✔	**Are you sure that you DO NOT discharge any wastewater to (1) a septic system or (2) groundwater or surface water without a permit?**	❑	❑
	You should check with your local POTW to determine if it requires the use of an oil-water separator on your drain to remove oily waste from wastewater before it enters the sewer.		
(30)	Does your shop have an oil-water separator?	❑	❑
	Oil-water separators (sometimes called oil or grease traps) separate oil and grit from water. Make sure that you maintain your oil-water separator by removing floating oil and collected sludge and managing them properly.		



3.4 HAZARDOUS WASTE REQUIREMENTS

Yes No

HAZARDOUS WASTES INCLUDE MATERIALS SUCH AS USED PAINTS, SPENT SOLVENTS, AND SOLVENT- OR PAINT-SOAKED RAGS. SEE THE HAZARDOUS WASTE TEXT IN SECTION 2 OF THE WORKBOOK (PAGES 2-11 THROUGH 2-16) FOR MORE INFORMATION ON DETERMINING IF YOUR WASTES ARE CONSIDERED HAZARDOUS.

GENERATOR STATUS

(31)✔ Do you know your hazardous waste generator status? Mark the correct box. ❑ ❑

- ❑ Very Small Quantity Generator (VSQG): generate 0 to 26 gallons/month.
- ❑ Small Quantity Generator (SQG): generate 27 to 270 gallons/month.
- ❑ Large Quantity Generator (LQG): generate more than 270 gallons/month.

Yes No

(32)✔ Do you know your waste oil generator status? Mark the correct box. ❑ ❑

- ❑ Very Small Quantity Generator (VSQG): generate 0 to 26 gallons/month.
- ❑ Small Quantity Generator (SQG): generate 27 to 270 gallons/month.
- ❑ Large Quantity Generator (SQG): generate more than 270 gallons/month.

Your generator status determines how some of the following items impact you. If you are a VSQG go to item 33 and then 34. If you are a SQG or LQG, go to item 33 and then 35.

(33) Provide waste type information for the following table:

Waste Type	Quantity Generated Per Month	On-site Quantity Accumulated*	Disposal Method
Solvents			
Paints			
Sand blast debris			
Rags			
Spray booth filters			
Antifreeze			
Waste Oil			

* You should indicate the time period over which this quantity was accumulated to help you keep track of the storage quantities and times you are allowed.

(34)✔For VSQGs, does your shop make sure that it meets the maximum allowed storage/accumulation quantity of three drums at one time? Go to item 36. ❑ ❑

There is no storage/accumulation time limit for VSQGs.

(35)✔For SQGs, does your shop make sure that it meets the maximum storage/accumulation quantity limit of ten drums [less than 4,400 pounds (lbs)] and time limit of 180 days? ❑ ❑

Auto body shops generally are not expected to be LQGs. However, if you are a LQG, make sure that you meet the time period limit of 90 days for storage (there is no storage/accumulation quantity limit for LQGs).



Yes No

Waste Generator Identification and Notification

(36)✔ Does your shop have a permanent twelve-digit EPA generator identification (ID) number for the generation of hazardous waste? ❑ ❑

If yes, provide this number: _____

If No, and you are a SQG or LQG that disposes of hazardous waste, you must obtain an ID number before using a hazardous waste transporter. If No, and you are a VSQG, you do not have to apply for an ID number; however, you must notify DEP (see item 37) and self-assign a generator ID number (use the prefix MV and your 10-digit business phone number as your self-assigned VSQG ID number). For SQGs and LQGs, follow the directions for obtaining a generator ID number that are included in Section 3 of the Toolbox, or call the DEP hazardous waste hotline at (617) 292-5898 for help.

(37)✔ Has your shop ever notified DEP of hazardous waste activity? ❑ ❑

If No, follow the directions in Section 3 of the Toolbox for notifying DEP or call the DEP hazardous waste hotline at (617) 292-5898 for help.

(38)✔ Are you able to document that all wastes that are managed as non-hazardous are properly classified? ❑ ❑

If No, you should be able to document how these wastes were determined to be non-hazardous. For example, you can show that a waste is non-hazardous by using the information provided in its respective material safety data sheet (MSDS) or by documenting that no hazardous materials were involved with the generation of the waste. If you are not sure about a waste classification, call the DEP hazardous waste hotline at (617) 292-5898 for help.

Hazardous Waste Storage/Accumulation (S/A)

(39)✔ Does your shop have a designated hazardous waste S/A area? ❑ ❑

(40)✔ Are non-hazardous waste materials stored separately from hazardous waste? ❑ ❑

(41)✔ Is your hazardous waste S/A area clearly labeled with a sign with letters that are at least one inch high that says "Hazardous Waste"? ❑ ❑

(42)✔ Are the boundaries of the S/A area distinguishable from other areas and clearly marked with, for instance, a yellow line or chain? ❑ ❑

(43)✔ Is the floor of the hazardous waste S/A area impervious to leaks, without any cracks, openings, or drains? ❑ ❑

(44)✔ If the S/A area is outdoors, is there adequate secondary containment (for liquid materials)? If not applicable, check here ____ and go to item 46. ❑ ❑

Yes No

Adequate secondary containment for an outdoor liquid hazardous waste S/A area means having a berm or diked area which will hold leaks or spills that are 10 percent of the total allowed volume of the S/A area (based on your generator status) or 110 percent of the volume of the largest container, whichever is greater.

(45)✔ Is your outside hazardous waste S/A area secured against trespassers? ❑ ❑

Container Management

(46)✔ Are containers of hazardous and non-hazardous waste properly labeled? ❑ ❑

"Proper" labeling includes the words "Hazardous Waste" or "Non-Hazardous Waste" and the name of the waste. Also, list the waste characteristic or code (such as ignitable, toxic, D002, etc.); and your name, address, and hazardous waste ID number. The date storage began also is required for SQGs and LQGs. A sample hazardous waste label is provided in Section 3 of the Toolbox.

(47)✔ Are containers of hazardous waste properly closed? ❑ ❑

"Properly closed" means that containers are closed tightly so that hazardous waste does not evaporate or spill.

(48)✔ Are containers of hazardous waste in good condition? ❑ ❑

"Good condition" means that the containers are not dented, rusted, cracked, or opened.

Documentation, Transport and Off-site Management

The U.S. Department of Transportation regulates the transport of hazardous materials, including hazardous waste. EPA and DEP regulate the management and disposal of hazardous waste to protect the environment and human health. Requirements that impact you are summarized below. A hazardous waste manifest is the document which logs the journey of a hazardous waste from "cradle to grave". If hazardous waste that leaves your shop is disposed of improperly, you are responsible. Therefore, it is important for you to know where your waste is going and to make sure that it is handled safely. If you are a VSQG and self-transport waste, go to item 49 below. If you are a VSQG and do not self-transport waste, go to item 52. SQGs and LQGs can not self-transport waste and should go to item 52.

(49)✔ If you are a VSQG and you self-transport hazardous waste, do you document waste generation and management? ❑ ❑

VSQGs that self-transport waste do not have to complete hazardous waste manifests. However, they are required to maintain a list of the waste type, waste quantity, date of waste transport, and date of waste treatment or disposal.



Yes No

(50)✔ If you are a VSQG and you self-transport hazardous waste, indicate where the waste is taken (all facilities used): _____

_____

You need to document where your waste is taken to prove that you properly manage the waste.

(51)✔ If you are a VSQG and self-transport hazardous waste, do you get and keep proofs of receipt from the facility that accepts your waste? Go to item 55. ❑ ❑

You need to get these receipts to prove that your waste is properly managed.

(52)✔ For SQGs and LQGs (and VSQGs that do not self-transport their waste), do you have hazardous waste manifests completely filled out and distributed? ❑ ❑

See Section 2.1.2.C of the Workbook for more information on how to complete a manifest and distribute it properly.

(53)✔ Do you keep your hazardous waste manifests for at least three years? ❑ ❑

EPA requires that you keep manifests for three years, but it is a good idea to keep them indefinitely. Also keep any waste sampling, Exception Report, or Biennial Report data (for LQGs) for three years (see Section 2.1.2.C of the Workbook).

(54)✔ Do you use licensed hazardous waste transporters? ❑ ❑

If Yes, indicate the name(s) of these transporters:

_____

_____

You must use a licensed hazardous waste transporter if you are a SQG or LQG. All generators must record where their waste is taken. Call the DEP hazardous waste hotline at (617) 292-5898 for a list of licensed hazardous waste transporters and the waste types that they are licensed to transport.

(55)✔ Are your hazardous waste containers properly labeled for transport and disposal? ❑ ❑

Containers must be labeled with the words "Hazardous Waste"; the name of the waste; the type of hazardous waste (such as reactive, corrosive, toxic, etc.); and your name, address, and generator ID number.

Aboveground Storage Tank (AST) Requirements

(56) Does your shop have an AST? ❑ ❑

If Yes, provide the following information:

AST capacity: _____

Yes No

Date installed:_____

Type of waste stored:_____

✔ If Yes, does the AST and its containment meet the hazardous waste storage/accumulation requirements of items 39-48?

Underground Storage Tank (UST) Requirements

(57) Does your shop have a UST? If No, go to item 58. ❑ ❑

✔ If Yes, was the UST installed after 1989? If Yes, go to item 58. ❑ ❑

✔ If No, does the UST comply with the UST requirements described below? ❑ ❑

All USTs that were installed before January 1989 and that are not double-walled must be upgraded with leak detection devices OR taken out of service by December 22, 1998. To continue to use an older UST (one that was installed before January 1989), the UST must have at least ONE of the following spill and release prevention factors: (1) double walls with interstitial monitoring (see Definition in Section 5 of the Toolbox), (2) an in-tank monitoring device installed by a qualified professional (call the State Fire Marshal at the number listed below for more information), or (3) monitoring equipment that can detect vapors within the soil gas of the evacuation zone of the UST. If you have a UST that was installed before January of 1989, call the State Fire Marshal at (978) 567-3300 for information on testing your UST for leaks and retrofitting it to meet the new standards by December 22, 1998.

3.5 HEALTH PROTECTION AND FIRE PREVENTION REQUIREMENTS

Yes No

This section of the checklist addresses federal, state and local safety and health and fire prevention requirements (including building and electrical code requirements) that are designed to allow the safe operation of spray painting areas and equipment in your auto body shop (also see the Toolbox, Section 2).

Occupational Safety and Health Act (OSHA) Requirements

(58)✔ Does your shop have a written Hazard Communication Program that meets basic OSHA requirements? ❑ ❑

See Section 2 of the Toolbox for Hazard Communication Program requirements.

(59)✔ Are Material Safety Data Sheets (MSDS) for every hazardous chemical that you use available to employees in the shop? ❑ ❑

See Section 2 of the Toolbox for more information on MSDSs.



	Yes	No
(60)✔ Does your shop have a Personal Protection Equipment (PPE) Program that meets basic OSHA requirements?	❑	❑
See section 2 of the Toolbox for PPE Program requirements.		
(61)✔ Does your shop have one or more eye wash stations that are properly maintained?	❑	❑
Eye wash stations should be located within 100 feet of the potential hazard and should be capable of flushing both eyes for 15 minutes or more.		
(62)✔ Does your shop use respirators for worker protection? If No, go to item 63.	❑	❑
Most auto body shops will need to use respirators. If you are not sure if respirators are required for your shop, call the OSHA Consultation Program at (617) 969-7177.		
✔If Yes, does your shop have a Respiratory Protection Program (including medical screening and fit testing) that meets basic OSHA requirements?	❑	❑
If your shop uses respirators, you must implement this program. See Section 2 of the Toolbox for Respiratory Protection Program requirements.		
(63)✔ Does your shop require a Hearing Protection Program? If No, go to item 64.	❑	❑
If you are not sure if your shop must have this program, call the OSHA Consultation Program at (617) 969-7177.		
✔If Yes, does your Hearing Protection Program meet basic OSHA requirements?	❑	❑
See Section 2 of the Toolbox for Hearing Protection Program requirements.		
(64)✔ Have personnel that handle hazardous substances and waste, or flammable or combustible materials, been trained (1) in emergency procedures and (2) in the safe handling, storage, transfer, and use of the materials?	❑	❑
(65)✔ Do you keep records of the dates and the training provided to personnel?	❑	❑
(66) Does your shop have 11 or more employees? If No, go to item 67.	❑	❑
✔If Yes, do you keep records of occupational injuries or illnesses, as required by OSHA? If No, you must maintain these records. Continue with this item.	❑	❑
✔Do you have an OSHA 200 log of accidents and incidents posted during the month of February?	❑	❑
If your shop has 11 or more employees, you need to keep records and maintain this OSHA 200 log all year; you must post the log in your shop during the month of February each year.		

	Yes	No
SPRAY PAINTING ENCLOSURE AND SURROUNDING AREA(S)		
(67)✔ Does your shop use a spray enclosure to control spray paint in the air?	❑	❑
If No, stop all spraying jobs and install a compliant spray enclosure immediately. A spray enclosure is required by State Building Code Requirements [780 Code of Massachusetts Regulations (CMR) 419.0]. See page 2-5 of the Workbook and item 17 for spray enclosure requirements.		
(68)✔ Does your spray enclosure have a functioning mechanical exhaust system?	❑	❑
(69)✔ Does your shop have a Spray Enclosure Permit from your local Code Enforcement Agency?	❑	❑
(70)✔ Is your spray enclosure constructed of fire resistant materials?	❑	❑
Spray enclosure walls must have a minimum of a 1-hour fire resistance rating to be considered fire resistant.		
(71)✔ Are fire extinguishers installed near the spray enclosure?	❑	❑
Make sure that extinguishers are appropriate for spray painting-related fires, and that shop employees are trained in using them.		
(72)✔ Are Class II or noncombustible filters used in the spray enclosure system?	❑	❑
(73)✔ Does your spray enclosure have sufficient ventilation to maintain an air transfer rate of 100 linear feet per minute across the enclosure?	❑	❑
NFPA Code 33 requires that spray enclosures be outfitted with exhaust systems that provide uniform airflow across the width and height of the enclosure. There are several ways to monitor the velocity of your exhaust system. You may install and regularly check visible gauges; you may install audible alarms to alert you when velocity is too low; or you may set up a regular inspection program to check the condition of the filter surface to avoid use of a clogged filter.		
(74)✔ Is electrical equipment located in or near the spray enclosure designed to be spark proof?	❑	❑
If electrical ventilation equipment (such as a fan motor) is located in the spray room or booth, it must be explosion-proof and approved for Class I, Division I locations. Ventilation equipment that is interlocked with spray equipment and located within 5 feet of the opening of the spray booth or room must be approved for Class I, Division 2 locations. Ventilation equipment that is not interlocked with spray equipment and located within 10 feet of the opening of the spray booth or room must be approved for Class I, Division 2 locations. All electrical equipment located 3 feet above the spray booth or room or within 3 feet of the opening of the spray booth or room must be approved for Class I, Division 2 locations. All electrical equipment located within 20 feet of the opening must be spark-proof.		



	Yes	No
(75)✔ Are "No Smoking" and other hazard warning signs posted in obvious locations in spray enclosure and surrounding areas?	❑	❑
(76)✔ Do you store only a one day supply of flammable or combustible liquids in your spray painting enclosure and surrounding area?	❑	❑

No more than a day's supply of flammable or combustible liquids may be stored in the spray enclosure or surrounding area.

(77)✔ Are the spray painting enclosure and surrounding areas free of fire hazards from hot surfaces?	❑	❑

No space heating appliances, portable heat panels, steam pipes, or hot surfaces are allowed in spray painting areas.

Spray Enclosure Exhaust Stack

(78)✔ Is the spray enclosure exhaust stack properly located?	❑	❑

As required by NFPA Code 33, the open end of the stack must end at least 25 feet from any combustible walls or unprotected openings.

(79)✔ Are you careful to avoid any complaints from neighbors about paint dust, odors, or other air pollution coming from your shop?	❑	❑

Flammable Storage

(80)✔ Are all solvents, coatings, and cleaning materials contained in tightly-closed containers?	❑	❑
(81) Are you required to use a flammable storage cabinet or room (see below) for the storage of your flammable liquids? If No, go to item 84.	❑	❑

A flammable storage room is required when certain amounts of flammable liquids are stored within one "fire area." A fire area is defined as any part of the shop separated by a wall that has a one-hour fire resistance rating. It is unlikely that many auto body shops store enough flammable materials to require a flammable storage room. However, flammable storage cabinets are required by OSHA if you store more than 25 gallons of highly flammable material. The NFPA also recommends the use of a flammable storage cabinet for storing flammable liquids (up to 60 gallons).

✔If Yes, do you use a flammable storage cabinet or room to store your flammable liquids? Continue with items 82 and 83 below.	❑	❑

Yes No

(82)✔ Is the flammable storage room mechanically ventilated? ❑ ❑

✔If Yes, is the flammable storage room ventilated at a minimum rate of 1 cubic foot per minute per square foot of room area? ❑ ❑

Note: Flammable storage cabinets are designed not to be ventilated, while flammable storage rooms are required to be ventilated.

(83)✔ Is your automatic fire system operating properly? ❑ ❑

You should test this system as required to make sure that it is operational.

Mixing Rooms

(84)✔ When transferring flammable liquids from a drum to a small container for shop use, do you ground and bond both containers to eliminate static sparks? ❑ ❑

Class I and II liquids that are in containers with a volume of 5 gallons or more, may only be transferred (1) through an opening in the top of the container using an "approved" pump or (2) through a self-closing valve or self-closing faucet. Class I liquid transfer equipment also must be grounded and the nozzle and container must be bonded to one another to prevent ignition due to static discharge.

(85)✔ Are mixing rooms or areas ventilated at a rate of 1 cubic foot per meter per square foot floor area? ❑ ❑

Fire Prevention, Emergency, and Contingency Planning

(86)✔ Does your shop have a sprinkler system? If No, you need to install one; continue to item 87. ❑ ❑

✔If Yes, are sprinkler heads kept unclogged so that they will work if a fire occurs? ❑ ❑

(87)✔ Do you provide emergency training to your employees? ❑ ❑

Emergency training is required by OSHA, Code of Federal Regulations (CFR) 1910.38 and 1910.157, and should include items such as fire extinguisher training, emergency responsibilities, emergency numbers, and how to use MSDS information. You must document this training. See Section 2 of the Toolbox for more information.

(88)✔ Are emergency telephone numbers listed by the telephone? ❑ ❑

(89)✔ Does your shop have a working fire extinguisher? ❑ ❑

(90)✔ Does your shop have a spill control plan? ❑ ❑

(91)✔ Have you posted emergency information? ❑ ❑

You must post the locations of fire extinguishers, alarms, evacuation routes, and post-exit meeting places.